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Article 34**AN OUTLET ARRANGEMENT****Technical Field**

5 The present invention relates to an outlet arrangement for adapting a water receptacle having a smaller diameter outlet for use with a larger diameter waste outlet and trap.

10 The invention has been primarily developed to adapt sinks or hand basins produced with outlet openings suited for 32 mm diameter waste outlet components for use with 40 mm diameter traps and will be described hereinafter with reference to this application. However, it will be appreciated that the invention is not limited to these particular use and is equally suited for relatively smaller and larger diameters of various sizes.

Background of the Invention

15 Water receptacles, such as sinks and hand basins, produced for markets outside of Australia commonly have an outlet opening designed to fit 32 mm waste outlet components. Sinks and hand basins produced for the Australian market have an outlet opening designed to fit 40 mm diameter waste outlet components, which are suitable for connection to the 40 mm diameter traps common in Australian plumbing. Accordingly, adapting 32 mm waste outlet components to 40 mm plumbing requires a 32 mm to 40 mm thread adaptor.

20 There are two main disadvantages associated with such thread adaptors. The first is that they represent an additional expense to produce, supply and install. The second is they introduce an extra potential leak path between the waste outlet in the sink/basin and the adaptor.

Object of the Invention

25 It is the object of the present invention to substantially overcome or at least ameliorate one or more of the above prior art disadvantages.

Summary of the Invention

30 An outlet arrangement for adapting a water receptacle having a smaller diameter outlet for use with a larger diameter waste outlet and trap, the arrangement including:
an outlet member having a first end adapted to seal against an opening of either the smaller or the larger diameter and a second threaded end adapted to fit through an opening of the smaller diameter;

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a locking collar having an internal thread adapted to engage with the second threaded end of the outlet member and an external thread adapted to engage a waste outlet or trap of the larger diameter.

5 The outlet member first end preferably includes a sealing region adapted to seal against a waste outlet opening of either the smaller or the larger diameter. The outlet member first end sealing region is preferably in the form of an annular flange.

10 In a form suitable for use with a standard basin, the outlet member threaded end has a solid sidewall. In form suitable for use with an overflow basin, the outlet member threaded end has at least one opening in its sidewall. The opening can be formed in the threaded end during manufacture or added prior to installation (eg. by drilling).

15 The collar preferably includes a sealing region adapted to seal against the end of the waste outlet that is remote the waste outlet opening. The collar sealing region is preferably in the form of an external annular flange. The external annular flange preferably has an inner diameter smaller, most preferably only slightly smaller, than the smaller diameter and an outer diameter larger than the larger diameter. The collar sealing region is preferably nearer the opposite end of the collar to that having the external thread.

20 The outlet arrangement is preferably sized to adapt a sink or basin with an outlet opening suitable for 32 mm diameter outlet components for use with a 40 mm diameter waste outlet and trap.

Brief Description of the Drawings

A preferred embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

25 Fig. 1 is an exploded perspective view of a first embodiment of an outlet arrangement according to the invention;

Fig. 2 is a cross sectional side view of the outlet arrangement shown in Fig 1 installed in a non-overflow basin suited for 40 mm waste outlet components;

Fig. 3 is a cross sectional side view of the outlet arrangement shown in Fig. 1 installed in an overflow basin suited for 32 mm waste outlet components; and

30 Figs. 4 to 8 are assembled top, perspective, side, front and cross sectional side views respectively of the outlet arrangement shown in Fig. 1.

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The claims defining the invention are as follows:

1. An outlet arrangement for adapting a water receptacle having a smaller diameter outlet for use with a larger diameter waste outlet and trap, the arrangement including:
 - 5 an outlet member having a first end adapted to seal against an opening of either the smaller or the larger diameter and a second threaded end adapted to fit through an opening of the smaller diameter;
 - a locking collar having an internal thread adapted to engage with the second threaded end of the outlet member and an external thread adapted to engage a waste outlet or trap of the larger diameter.
2. The arrangement as claimed in claim 1, wherein the outlet member first end includes a sealing region adapted to seal against a waste outlet opening of either the smaller or the larger diameter.
3. The arrangement as claimed in claim 2, wherein the outlet member first end sealing region is in the form of an annular flange.
4. The arrangement as claimed in claim 1, 2 or 3, wherein the outlet member threaded end has a solid sidewall.
5. The arrangement as claimed in claim 1, 2 or 3, wherein the outlet member threaded end has at least one opening in its sidewall.
6. The arrangement as claimed in claim 5, wherein the opening is formed in the threaded end during manufacture or added prior to installation.
7. The arrangement as claimed in any one of the preceding claims, wherein the collar includes a sealing region adapted to seal against the end of the waste outlet that is remote the waste outlet opening.
8. The arrangement as claimed in claim 7, wherein the collar sealing region is in the form of an external annular flange.
9. The arrangement as claimed in claim 8, wherein the external annular flange has an inner diameter smaller than the smaller diameter and an outer diameter larger than the larger diameter.
10. The arrangement as claimed in claim 8, wherein the external annular flange has an inner diameter only slightly smaller than the smaller diameter and an outer diameter larger than the larger diameter.

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11. The arrangement as claimed in any one of claims 7 to 10, wherein the collar sealing region is nearer the opposite end of the collar to that having the external thread.

5 12. The arrangement as claimed in any one of the preceding claims, wherein the outlet arrangement is sized to adapt a sink or basin with an outlet opening suitable for use with 32 mm diameter waste outlet components for use with 40 mm diameter waste outlets or traps.

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